CLAIMS

1. A method for transposition, by expanding or compressing a first signal in time by duplicating or discarding arbitrary long segments of said first signal, and subsequently down or up-sampling said first signal, comprising the following steps:

performing transient detection on said first signal;

determining which signal segment of said first signal to be used when duplicating or discarding parts of said first signal depending on an outcome of the step of performing a transient detection;

adjusting a length L of said signal segment depending on the outcome of the transient detection;

adjusting a number of samples N used for each statevector of a plurality of statevectors depending on an outcome of the step of performing a transient detection;

adjusting a delay D between samples in a statevector of a plurality of statevectors depending on an outcome of the step of performing a transient detection;

adjusting a number of samples K between each statevector of a plurality of statevectors depending on an outcome of the step of performing a transient detection; and

searching for synchronisation points in a chosen segment of said first signal, based on the synchronisation point found in a previous synchronisation point search.

2. A method according to claim 1, in which several transposers are interconnected in order to share synchronisation point information; whereby reduced computational complexity is achieved.

3. A method according to claim 2, in which the transposers are connected to a suitable filter bank, and signals fed into each of the several transposers are filtered as to obtain an arbitrary spectral envelope of a new signal being the sum of the signals being fed into the transposers.

4. An apparatus for transposition, by expanding or compressing a first signal in time by duplicating or discarding arbitrary long segments of said first signal, and subsequently down or up-sampling said first signal, comprising:

a transient detector for performing transient detection on said first signal;

means for using the position of a possible transient when determining which segment of said first signal to be used when duplicating or discarding parts of said first signal, in order to obtain said transposition;

an adjuster for adjusting a length (L) of said signal segment depending on an output from the transient detector and for adjusting a number of samples (N) used for each statevector of a plurality of statevectors depending on an output from the transient detector and for adjusting a delay (D) between samples in a statevector of the plurality of statevectors depending on an output from the transient detector, and for adjusting a number of samples (K) between each statevector of the plurality of statevectors depending on an output from the transient detector; and

a searcher for searching for synchronisation points in a chosen segment of said first signal, based on the synchronisation point found in a previous synchronisation point search.

5. An apparatus according to claim 4, operating on subband signals, further comprising:

means for sharing synchronisation information between multiple apparatus for transposing;

means for forming subsets of said subband signals;

an amplitude adjuster for amplitude adjustment of every channel within each of said subsets;

a synthesis filter bank for forming, from each of said subsets, an input signal to each of said multiple apparatus for transposition;

a processor for processing said input signals by said multiple apparatus for transposition; and

a summer for acquiring a new signal by summation of said processed signals; whereby an arbitrary spectral envelope can be obtained.